

## **REMARKS/ARGUMENTS**

Claims 1-4, 8-14, and 18-25 are pending in the application. Claims 20 and 24 are amended herein. The Applicant hereby requests further examination and reconsideration of the application in view of the foregoing amendments and the following remarks.

### **Prior-Art Rejections**

In pages 2-8 of the office action, the Examiner rejected claims 20, 23, and 24 under 35 U.S.C. 103(a) as unpatentable over U.S. Pat. App. Pub. No. 2003/0147352 A1 to Ishibashi et al. in view of U.S. Pat. No. 6,130,875 to Doshi et al., in further view of U.S. Pat. No. 7,398,321 to Qiao et al. In pages 8-10 of the office action, the Examiner rejected claims 21-22 under 35 U.S.C. 103(a) as unpatentable over Ishibashi, Doshi, and Qiao, in further view of U.S. Pat. No. 6,904,462 B1 to Sinha.

### **Allowable Subject Matter and Claims 13-14**

In pages 10-13, the Examiner stated that claims 1-4, 8-12, 18, and 19 are allowed. In page 13, the Examiner stated that claim 25 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. In the office action, the Examiner did not specifically address claims 13-14, which are indicated as allowed in the Office Action Summary, form PTOL-326, accompanying the office action, and which depend variously from allowed claim 1. The Applicant respectfully requests that claims 13-14 be specifically indicated as allowed.

### **Comments on Examiner's Statement of Reasons for Allowance**

The Examiner's statement of reasons for the indication of allowable subject matter ("Statement") contains language that attempts to characterize the subject matter of claims 1, 18, and 19. The Applicant submits, however, that the language in the Statement does not accurately characterize those claims.

The Applicant submits that the allowed claims are misquoted in the Statement. In general, the Applicant does not admit to the representations made by the Examiner in the Statement. The Applicant further submits that the claims are allowable for at least the reasons previously set forth by the Applicant.

In general, to the extent that the Statement differs from the language of any of the allowed claims, the Applicant rejects any narrowing or limitations that might possibly result from such differences.

For the above reasons, individually and collectively, the Applicant objects to the Statement.

#### Claims 20 and 24

In rejecting previously pending claim 20, the Examiner argued that the combination of Ishibashi, Doshi, and Qiao is proper and that the combination discloses all of the features of claim 20. In particular, the Examiner argued that Qiao teaches the feature of “for each link of a specified set of links in the network: . . . (3) reducing the link’s cost when it is determined that the link’s bandwidth can be shared with the new restoration path.” Claims 20 and 24 have been amended to more clearly indicate that the cost reduced in respective element (A)(3) is the assigned initial cost from respective element (A)(1).

In supporting the propriety of the combination of Ishibashi, Doshi, and Qiao, the Examiner stated, “Both Ishibashi, Sinha, and Saito disclose protection paths, SRG constraints. Saito recognizes reducing the link’s costs when it is determined that the link’s bandwidth can be shared with the new restoration path.” The Applicant notes that assuming, *arguendo*, that Saito discloses what the Examiner claims, which the Applicant does not admit, those teachings are irrelevant to a combination that does not include Saito, namely the Examiner’s proffered combination of Ishibashi, Doshi, and Qiao.

The Examiner also cited a section of Qiao stating that “no existing schemes can achieve better bandwidth efficiencies than shared path protection while having a much shorter backup segment, as well as scalable algorithm.” The Applicant submits that the Examiner did not provide any discernable reason why the above citation supports the combination of Qiao with Ishibashi and Doshi. Therefore, for the above reasons, the Applicant submits that this combination is improper.

Furthermore, assuming, *arguendo*, that the combination of Ishibashi, Doshi, and Qiao is proper, which the Applicant does not admit, then the Applicant submits that the combination does not teach “reducing the link’s assigned initial cost when it is determined that the link’s bandwidth can be shared with the new restoration path,” as required by currently amended claim 20.

The Examiner cited column 12, lines 24-26, of Qiao as specifically teaching “reducing the link’s cost when it is determined that the link’s bandwidth . . . can be shared with the new restoration path.” The cited section of Qiao states, “we want to reduce additional backup bandwidth needed to protect the connection, by allowing [backup segment] BS1 and [backup segment] BS2 to share more backup bandwidth with other existing [backup segments]. . . .” (emphasis added). However, reducing additional backup bandwidth is not an example of reducing cost since additional backup bandwidth is not a type of link cost. Thus, the cited section says nothing about reducing a cost initially assigned to a link. Indeed, Qiao does not anywhere teach assigning an initial cost to a link and reducing the link’s assigned initial cost when it is determined that the link’s bandwidth can be shared with a new restoration path. Consequently, it cannot be said that the cited references teach this requisite feature of amended claim 20.

In rejecting previously pending claim 20, the Examiner argued that Doshi teaches the feature of “calculating the minimum-cost restoration path for the new primary path using the specified set of links, wherein the cost of the minimum-cost restoration path is based on the sum of the costs of the links of the minimum-cost restoration path.” As noted above, the Applicant submits that the combination of Ishibashi, Doshi, and Qiao is improper. Assuming, *arguendo*, that the combination of Ishibashi, Doshi, and Qiao is proper, which the Applicant does not admit, then the Applicant further submits that the combination does not teach the above-quoted requisite feature of claim 20.

In this regard, note that the Examiner cited Fig. 16 and column 30, lines 50-62, of Doshi as specifically teaching this feature. However, the cited sections refer to capacity, not cost. These cited sections say nothing about link costs, let alone a minimum-cost restoration path or the sum of the costs of the links of a minimum-cost restoration path. Thus, the rejection of claim 20 based on these cited sections is improper.

Therefore, Applicant submits that amended claim 20 is allowable over the cited references. For similar reasons, applicant submits that amended claim 24 is also allowable over the cited references. Since claims 21-23 depend variously from amended claim 20, and claim 25 depends from amended claim 24, it is further submitted that those claims are also allowable over the cited references.

### Claim 23

In rejecting claim 23, the Examiner argued that the combination of Ishibashi and Doshi teaches all of the claimed features of claim 23. In particular, the Examiner argued that Doshi teaches a method wherein (1) “a path pair cost is generated for each candidate primary path as the sum of the path cost of the candidate primary path and the path cost of the corresponding minimum-cost restoration path,” and the method further comprises (2) “selecting (i) a candidate primary path from the set of candidate primary paths and (ii) the corresponding minimum-cost restoration path that together have the lowest path pair cost.”

The Examiner cited column 33, lines 14-20, of Doshi as specifically teaching the above-quoted requisite features. Unfortunately, the office action mischaracterizes Doshi. The cited section of Doshi actually discusses free capacities on links. Free capacities are not examples of path costs. Thus, the cited section says nothing about costs, let alone (a) generating a path pair cost as the sum of the path cost of a candidate primary path and the path cost of a corresponding minimum-cost restoration path or (b) selecting a candidate primary path and a corresponding minimum-cost restoration path that together have the lowest path pair cost. As a result, the rejection of claim 23 is improper.

Therefore, the Applicant submits that claim 23 is allowable over the cited references.

In view of the above amendments and remarks, the Applicant believes that the now-pending claims are in condition for allowance. Therefore, the Applicant believes that the entire application is now in condition for allowance, and early and favorable action is respectfully solicited.

### Fees

During the pendency of this application, the Commissioner for Patents is hereby authorized to charge payment of any filing fees for presentation of extra claims under 37 CFR 1.16 and any patent application processing fees under 37 CFR 1.17 or credit any overpayment to Mendelsohn & Associates, P.C. Deposit Account No. 50-0782.

The Commissioner for Patents is hereby authorized to treat any concurrent or future reply, requiring a petition for extension of time under 37 CFR § 1.136 for its timely submission, as incorporating a petition for extension of time for the appropriate length of time if not submitted with the reply.

Respectfully submitted,

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